UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF PUBLIC ROADS
DIVISION OF AGRICULTURAL ENGINEERING

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M O N T H L Y N E W S L E T T E R

Washington, D. C., July 29, 1927.

The attention of all concerned is called to the memorandum dated July 19 requesting estimates for casings and tubes needed for the first quarter of the fiscal year 1928. Please bear in mind that hereafter calls for these estimates will not be made but that these should be forwarded so as to reach the Washington office not later than the fifth day of February, May, August, and November. Failure to receive these estimates will be construed as meaning that no tires and tubes are needed.

When films are received in Washington for developing, we ordinarily make two prints of each which are returned to sender for legends. When extra prints are wanted it is desirable, where the need can be anticipated, to so request at the time the films are sent in. This practice will tend to save time and work.

It has been concluded that employees who have transportation identification cards will not require the regular Departmental identification cards as the transportation identification card will sufficiently identify an employee of the Department. Those employees who do not have transportation identification cards will be issued Departmental identification cards when necessary.

In the interest of greater clearness and definiteness in the designation of publications of the Department the following changes are to be made. The Department Bulletin series will end at No. 1500 and will be replaced by a new series known as Technical Bulletins. Likewise "Department Circular" will be superseded by "Circular" and "Miscellaneous Circular" by "Miscellaneous Publication". Each of the new series will begin with No. 1.

Reports from the Colorado field show that the use of the improved Venturi flume as a dependable water measuring device in Colorado is growing steadily. This season there are about seventy smaller sized flumes in commission on the Fort Lyon Canal system in the Arkansas Valley, used to distribute water to the farmer's laterals, while at Fort Collins about sixty small sized flumes are used by the Lake Canal Company to measure the water to the users. Last season two 10-foot flumes were built in the Arkansas Valley. Near Fort Collins a 12-foot flume was installed.

The success of the 12-foot timber flume on the Los Angeles Consolidated Canal, near Los Angeles, warranted the recent construction of a 4-foot flume on the principal lateral from this ditch. A larger flume will be built soon on the extension of this system. The Tom Ditch, near Los Angeles is now equipped with a 4-foot flume to measure their appropriation of about 20 second-feet.

The Hollywood Irrigation District, near Rocky Ford, is planning to build a 12-foot reinforced concrete flume on its main canal this summer. This flume will have a capacity of 700 second-feet. The Twin Lakes Land and Water Company of Ordway has decided to install either a 10-foot or 12-foot flume of the Lake Meredith Outlet this coming September. This company recently experienced a 200 acre-foot loss from the lake on a four-day exchange run with river water because of faulty rating flume measurements. This season in the Arkansas Valley is one of scarcity of irrigation water and of rainfall, making careful measurement of water very necessary.

In connection with the cooling harvester investigation W. M. Hurst has been studying the problem of the drying of wheat by forced ventilation with heated air and has recently prepared a brief paper on the subject. He found that the bulk drying of wheat is unsatisfactory for the reason that the rate of drying is different in various of the bin is not uniform. The tests showed that wheat can be dried by this method but that it would be necessary to thoroughly mix it after drying and before storage. If the drying process is continued until the grain in the upper portion of the bin is dry, the grain at the middle and bottom is excessively dry, resulting in undue loss in weight of the grain and waste of heat.

A very successful annual meeting of the American Society of Agricultural Engineers was held at St. Paul, Minn. June 21-23. Several representatives of this Division, including Messrs. Mooney and McLaughlin, attended. The 1923 meeting will be held at Washington, D.C. in June. Plans for this meeting are now under way, which we hope will compare very favorably with any held heretofore.

The First International Congress of Soil Science closed their meeting at Washington, D. C. June 22. The delegates immediately started on an extended trip to the West Coast and will return to Washington July 21.

Messrs. Kelley and Weddell spent about ten days in Connecticut making horse-draft tests in competition with milk delivery in the cities of Waterbury and Bridgeport. This work is in cooperation with the Bureau of Animal Industry and the Connecticut Experiment Station.

T. A. Shaffer, Associate Drainage Engineer, resigned from the service effective June 30. Mr. Shaffer was one of our oldest drainage engineers in point of service, having entered in 1906. During the last

The Farmer Signed and "Evaporation from Free Water Surfaces", by F. A. Kessler and Earl Mohler, respectively.

The following movements of our men have been still in connection with the potato harvester project. Early in July Messrs. Hurst and Daugherty went to Blacksburg, Virginia, to survey the harvest in that neighborhood. Mr. Hurst returned to Washington within a few days and on July 10 proceeded to Pennsylvania to take part in the investigation in that State. Mr. Daugherty is to complete the Virginia work and will proceed thence to Lafayette, Indiana. Mark T. Jones of the Team A and a college man been employed temporarily to assist in the combine investigations in Illinois. It is probable that Mr. Hurst will proceed from Pennsylvania to North Dakota to survey the harvest of that State. This project, it will be remembered, was begun last summer and is conducted cooperatively with the Bureau of Agricultural Economics, the Bureau of Plant Industry, and the various State experiment stations.

H. C. Betts during the last month made a trip into Virginia and one to the eastern shore of Maryland in connection with the potato storage warehouse project.

R. T. Dennis, who for the last three months has been loaned to the Bureau of Entomology for the purpose of solving some of their mechanical difficulties in connection with spraying for the army worm in Massachusetts, returned to Washington, D. C., July 1. He, however, will continue the work in Massachusetts and probably will be engaged there still some time in September.

Charles L. Bennett, stationed at Tallahala, Miss., reports a little more snail improved, the Mississippi flood waters having finally receded to such a point that regular railroad schedules were again resumed.

R. M. Gray who, effective July 1, was promoted to the grade of agricultural engineer, spent a few days in Washington recently. Mr. Gray is acting as assistant director of the engineering division of the Corn Belt field organization, headquarters at Toledo, Ohio.

R. T. Warren has begun assembling material for a bulletin on farm water supply.

In checking up the harvest distribution for the fiscal year, we find the following shipments were made:

	Washington	Oregon
Red Delta, Kansas	5,282,200 lbs.	1,647,600 lbs.
Dayton, Washington	4,234,400 lbs.	2,770,200 lbs.
Hillsboro, New Mexico	1,021,200 lbs.	270,200 lbs.

Nearly all of the Black Diamond shipments during the present month have been placed on a Pacific Coast basis.